

WATER



Responsibly managing water is one of our key operational practices. We seek to minimize our use of fresh water by finding innovative ways to reuse produced water, source alternatives to fresh water, and reduce the overall amount of water required for our operations.

WATER USAGE AT-A-GLANCE

99%

of our global operational water was comprised of recycled or nonfresh water in 2021.

97%

of the total water utilized for production operations was recycled or nonfresh water in 2021.

Achieved

a 2021 goal to reduce U.S. total operational water usage to comprise less than 20% fresh water.

Responsible Water Management

Our primary operational water use is enhanced oil recovery in legacy oil fields in the Permian Basin. We also use water for drilling and completing new wells. Over the last five years, more than 95% of the water we have used has been recycled, produced or nonfresh water. We have achieved this reduction in freshwater consumption largely by increasing our reuse of produced water and by sourcing nonfresh water for use in hydraulic fracturing operations. In some instances, treated municipal wastewater has been used as a source for our operational water needs, as an alternative to fresh water.


Transporting Water Safely and Efficiently


We have expanded our water-related infrastructure in our U.S. onshore operations, allowing us to move water within most of our operations without trucks. This reduces trucking-related emissions, minimizes the potential for spills during loading and unloading, and lessens the impact of heavy trucks on local roads. Since 2020, water used for hydraulic fracturing in the Permian Basin has been transported by either permanent or temporary pipeline.


Utilizing Innovative Technology for Water Conservation


We have applied a variety of innovative technologies and treatment processes to allow us to store larger volumes of treated produced water for longer periods, including by using smaller impoundments and by applying advanced chemistry. In the past five years, we have increased our Permian Basin produced water storage capacity to nearly 16 million Bbls, and have improved our treatment of stored recycled water during reduced activity in 2019 and 2020 to ensure this water remains ready for reuse.


KEY WATER DEFINITIONS

 **Fresh Water** — Water sources with a total dissolved solids concentration of up to 1,000 milligrams per liter. Uses of water from these sources can include drinking water, potable water and water used for agriculture. The definition can vary in accordance with local statutes and regulations and is defined within this document for reporting purposes.


 **Nonfresh Water** — Water sources that do not meet the definition of fresh water. These sources could include produced water and brackish groundwater.

 **Produced Water** — Nonfresh water found in hydrocarbon formations that is brought to the surface during the oil and gas production process.

 **Recycled Water** — Produced water that has been treated for reuse in subsequent operations, including well completions or secondary recovery.

 **Secondary Recovery** — A process that involves injecting water or gas into producing formations to improve oil and gas recovery.

 **Water Consumption** — Water volumes used in APA's operations that are sourced from water withdrawals.

 **Water Withdrawals** — Water volumes drawn from surface water, groundwater, seawater, municipal sources and producing formations.